

CLAIMS

1. A steel prepared by casting liquid steel deoxidized with Al, including one or more rare-earth metals (REMs) selected from the group of Ce, La, Pr and Nd, is characterized by,

containing fewer alumina clusters in which oxide-based inclusions consisting mainly of alumina and REM-oxide contain REM-oxide of not less than 0.5 mass% and not more than 15 mass%.

2. A steel prepared by casting liquid steel deoxidized with Al, including one or more rare-earth metals (REMs) selected from the group of Ce, La, Pr and Nd, is characterized by,

containing fewer alumina clusters in which the mass ratio of total REM to total oxygen (T.O.), i.e. REM/T.O., is not less than 0.05 and not more than 0.5, and oxide-based inclusions consisting principally of alumina and REM-oxide contain REM-oxide of not less than 0.5 mass% and not more than 15 mass%.

3. A steel prepared by casting liquid steel deoxidized with Al, including one or more rare-earth metals (REMs) selected from the group of Ce, La, Pr and Nd, is characterized by,

including total REM of not less than 0.1 ppm and less than 10 ppm and dissolved REM of less than 1 ppm.

4. The steel containing fewer alumina clusters described in any of claims 1 to 3, in which said steel comprises C of 0.0005 to 1.5 mass%, Si of 0.005 to 1.2 mass%, Mn of 0.05 to 3.0 mass%, P of 0.001 to 0.1 mass%, S of 0.0001 to 0.05 mass%, Al of 0.005 to 1.5 mass%, and T.O. of less than 80 ppm, with the remainder comprising iron and unavoidable impurities.

5. The steel containing fewer alumina clusters described in claim 4, in which said steel further contains one or more of Cu of 0.1 to 1.5 mass%, Ni of 0.1 to 10.0 mass%, Cr of 0.1 to 10.0 mass% and Mo of 0.05 to

1.5 mass%.

5        6.    The steel containing fewer alumina clusters described in claim 4 or 5, in which said steel further contains one or more of Nb of 0.005 to 0.1 mass%, V of 0.005 to 0.3 mass% and Ti of 0.001 to 0.25 mass%.

      7.    The steel containing fewer alumina clusters described in any of claims 4 to 6, in which said steel further contains B of 0.0005 to 0.005 mass%.

10       8.    The steel containing fewer alumina clusters described in any of claims 1 to 3, in which the maximum diameter of alumina clusters obtained by applying slime extraction to said steel is less than 100  $\mu\text{m}$ .

15       9.    The steel containing fewer alumina clusters described in claim 8, in which the number of alumina clusters not smaller than 20  $\mu\text{m}$  is not more than 2/kg.